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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,282	10/14/2003	Ying Sun	J&J-5043CIP	4927
27777	7590	05/02/2007		
PHILIP S. JOHNSON JOHNSON & JOHNSON ONE JOHNSON & JOHNSON PLAZA NEW BRUNSWICK, NJ 08933-7003			EXAMINER MENDEZ, MANUEL A	
			ART UNIT 3763	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/685,282	<b>Applicant(s)</b> SUN ET AL.	
	<b>Examiner</b> Manuel Mendez	<b>Art Unit</b> 3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3-14 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-14 and 16-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/19/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 recites the limitation "said second conductive electrode" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim. Additionally, in order to use the phrase "second electrode" the phrase "first electrode" must be used in the claim to avoid vagueness.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 3-14 and 16-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fahim in view of Crisp et al.**, and in further view of [**Sage et al. (U.S. Patent No. 5,935,598), Joshi, Muller et al. or Phipps**], in further view of [**Ledger et al., Crawford et al., or EP 0337642**], and in further view of [**Gross et al. or Untereker et al.**].

The Fahim patent discloses a method of treating acne on the skin, the method comprising applying to the skin electrochemically generated zinc ions. More specifically, in columns 3, lines 9-17, the specification states:

Insofar as known prior to the present discovery, it was not known that a combination of zinc ions and 10 ascorbic acid would reduce the rate at which sebum is secreted and that if it was applied with ultrasonic vibrations that it would stimulate the production of collagen in the treatment of acne scars. Nor was it known that a combination of zinc ions and ascorbic acid could give 15 rise to a synergistic combination useful in killing the normal microflora found in the pilosebaceous ducts.

The Fahim patent does not disclose the use of an apparatus having an anode comprising of zinc. However, the application of zinc ions using a device having an anode comprising zinc is conventional in the art as evidenced by the teachings of Crisp et al. The Crisp et al., patent discloses an electrolytic device and teaches the use of an anode comprising zinc.

Based on the teachings of Crisp et al., for a person of ordinary skill in the art, modifying the teachings of the Fahim patent with the use of the electrolytic apparatus of Crisp et al., would have been considered obvious in view of the conventionality of the use of electrolytic apparatuses to treat skin with zinc ions.

Additionally, Sage et al., patent does not specifically disclose a power source producing a current density of less than .1 mA/cm<sup>2</sup>. However, power sources with said output are conventional in the art as evidenced by Muller et al. The teachings of Muller et al., clearly demonstrate that the use of electrical generators having current densities between .05 and .25 is well known in the art. Accordingly, for a person of ordinary skill in the art, it would be obvious to modify the power supply of Sage et al. with a power supply capable of outputting current densities within the range in question.

Conclusively, such substitution would have been considered an obvious design alternative.

The **Ledger et al.**, **Phipps**, **Crawford et al.**, or **EP 0337642**, individually or in combination at least suggest the conventionality of designing an apparatus wherein both the first conductive electrode and the second conductive electrode are in ionic communication with the carrier. Accordingly, for a person of ordinary skill in the art, modifying the apparatus disclosed by Sage et al., with a first conductive electrode and a second conductive electrode in ionic communication would have been considered obvious in view of the proven conventionality of this enhancement.

Finally, in relation to applicant's arguments concerning the phrase "ionic or electrical communication", the **Gross et al.** patent discloses a transdermal drug delivery apparatus having a power source, a cathode, and anode, and a carrier. Importantly, this patent demonstrates the conventionality of designing a patch wherein both the first conductive electrode and the second electrode are in ionic communication with the same carrier.

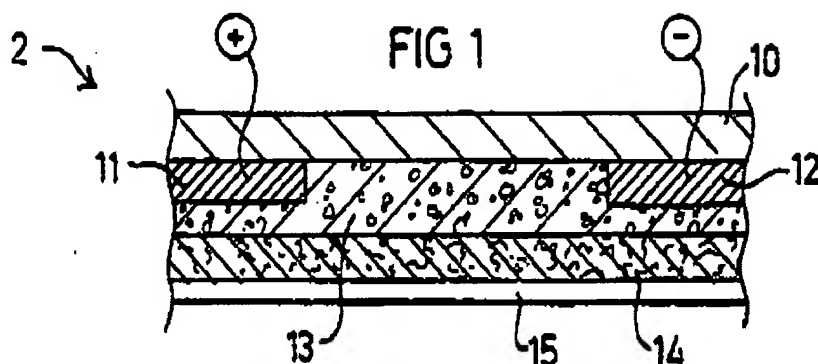


Figure 1 above shows a patch having an anode and a cathode in ionic communication with the same carrier and with no insulator between them. Accordingly, for a person of ordinary skill in the art, modifying the apparatus disclosed by **Crisp et al.**, or **Sage et al. (U.S. Patent No. 5,935,598)** with the removal of the insulator located between electrodes, as taught by Gross et al., would have been considered obvious in view of the proven conventionality of this enhancement.

Concerning the addition of the term "electrochemically" to claim 16, the examiner notes that claim 3 does not use this particular term, and additionally, claim 16 suffers from a Section 112 problem. Nevertheless, iontophoresis apparatuses that generate zinc ions electrochemically are well known in the art as evidenced by the teachings of Untereker et al.

Untereker et al. discloses an iontophoretic apparatus having a zinc anode and electrochemically produced ions. Moreover, the specification of this patent discloses the problem of hot spots when the cathode and anode are not compartmentalized, or in better terms, are in direct ionic communication. Interestingly, the comparison of

compartmentalized apparatuses with non-compartmentalized apparatuses demonstrates that both designs are conventional in the art.

Based on the above observations, for a person of ordinary skill in the art, modifying the apparatuses disclosed by Crisp et al., or Sage et al. (U.S. Patent No. 5,935,598) with a Zinc anode and the capability of generating electrochemically produced ions would have been considered an obvious design choice.

### ***Conclusion***

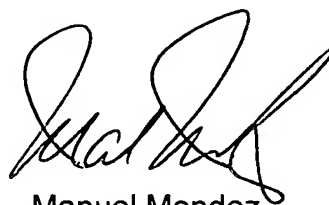
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel Mendez whose telephone number is 703-272-4977. The examiner can normally be reached on 0730-1800 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nicholas D. Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Manuel Mendez', with a stylized, flowing script.

Manuel Mendez  
Primary Examiner  
Art Unit 3763

MM